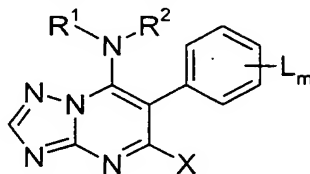


We claim:

1. 7-(Alkynylamino)triazolopyrimidines of the formula I

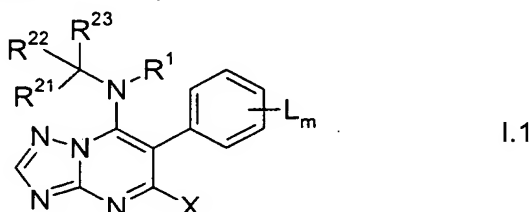


5 in which the substituents have the following meanings:

- L is, independently of one another, halogen, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₁-C₆-alkoxy, amino, NHR, NR₂, cyano, S(O)_nA¹ or C(O)A²;
- 10 R is C₁-C₈-alkyl or C₁-C₈-alkylcarbonyl;
- A¹ is hydrogen, hydroxyl, C₁-C₈-alkyl, C₁-C₈-alkylamino or di(C₁-C₈-alkyl)amino;
- 15 n is 0, 1 or 2;
- A² is C₂-C₈-alkenyl, C₁-C₈-alkoxy, C₁-C₆-haloalkoxy or one of the groups mentioned in A¹;
- 20 m is 1, 2, 3, 4 or 5, at least one L group being in the ortho position with respect to the bond with the triazolopyrimidine skeleton;
- X is halogen, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl or C₁-C₄-alkoxy;
- 25 R¹ is hydrogen or C₁-C₄-alkyl;
- R² is C₃-C₁₀-alkynyl, which can be unsubstituted or partially or completely halogenated or can carry one to three R^a groups:
- 30 R^a is halogen, cyano, nitro, hydroxyl, C₁-C₆-alkylcarbonyl, C₃-C₆-cycloalkyl, C₁-C₆-alkoxy, C₁-C₆-haloalkoxy, C₁-C₆-alkoxycarbonyl, C₁-C₆-alkylthio, C₁-C₆-alkylamino, di(C₁-C₆-alkyl)amino, C₂-C₆-alkenyl, C₂-C₆-alkenyloxy, C₃-C₆-alkynyloxy or C₃-C₆-cycloalkyl,
- 35 these aliphatic or alicyclic groups for their part being able to be partially or completely halogenated or to carry one to three R^b groups;

R^b is halogen, cyano, nitro, hydroxyl, mercapto, amino, carboxyl, aminocarbonyl, aminothiocarbonyl, alkyl, haloalkyl, alkenyl, alkenyloxy, alkynyloxy, alkoxy, haloalkoxy, alkylthio, alkylamino, dialkylamino, formyl, alkylcarbonyl, alkylsulfonyl, alkylsulfoxyl, alkoxy carbonyl, alkylcarbonyloxy, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminothiocarbonyl or dialkylaminothiocarbonyl, the alkyl groups in these radicals comprising 1 to 6 carbon atoms and the abovementioned alkenyl or alkynyl groups in these radicals comprising 2 to 8 carbon atoms.

2. Compounds of formula I.1



in which

R^{21} is methyl or halomethyl;

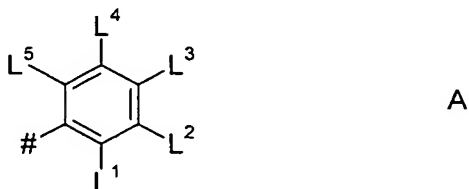
R^{22} is hydrogen, methyl or halomethyl;

R^{23} is C_2 - C_8 -alkynyl, which can be unsubstituted or partially or completely halogenated and/or can carry one to three R^a groups;

and the other variables are defined as claimed in claim 1.

3. Compounds of formula I or I.1 as claimed in claim 1 or 2, wherein X represents chlorine or methyl, in particular chlorine.

4. Compounds of formula I or I.1 as claimed in any of claims 1 to 3, wherein the phenyl group substituted by L_m is the group A



in which # is the point of linkage with the triazolopyrimidine skeleton and

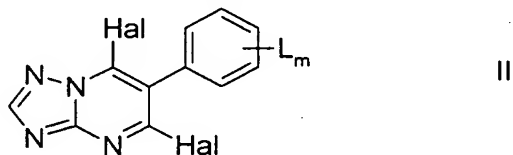
L^1 represents fluorine, chlorine, CH_3 or CF_3 ;

L^2 and L^4 represent, independently of one another, hydrogen or fluorine;

L^3 represents hydrogen, fluorine, chlorine, CH_3 , OCH_3 , amino, NHR or NR_2 ;
and

L^5 represents hydrogen, fluorine or CH_3 .

5. Compounds of formula I as claimed in any of claims 1 to 3, wherein the phenyl group substituted by L_m is one of the following substituent combinations: 2-fluoro-6-chloro, 2,6-difluoro, 2,6-dichloro, 2-fluoro-6-methyl, 2,4,6-trifluoro, 2,6-difluoro-4-methoxy, pentafluoro, 2-methyl-4-fluoro, 2-trifluoromethyl, 2-methoxy-6-fluoro, 2-chloro, 2-fluoro, 2,4-difluoro, 2-fluoro-4-chloro, 2-chloro-4-fluoro, 2,3-difluoro, 2,5-difluoro, 2,3,4-trifluoro, 2-methyl, 2,4-dimethyl, 2-methyl-4-chloro, 2-fluoro-4-methyl, 2,6-dimethyl, 2,4,6-trimethyl, 2,6-difluoro-4-methyl, 2-trifluoromethyl-4-fluoro, 2-trifluoromethyl-5-fluoro or 2-trifluoromethyl-5-chloro.
6. A process for the preparation of the compound of the formula I as claimed in any one of claims 1 to 5 by reaction of dihalotriazolopyrimidines of the formula II



in which the variables have the meanings given for formula I and Hal is a halogen atom, in particular chlorine, with amines of the formula III



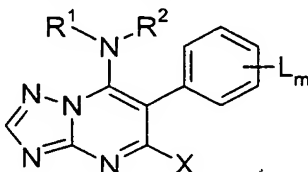
7. A preparation suitable for the control of harmful fungi, comprising a solid or liquid carrier and a compound of the formula I as claimed in claim 1.
8. A process for the control of harmful phytopathogenic fungi, which comprises treating the fungi or the materials; plants, ground or seeds to be protected from fungal attack with an effective amount of a compound of the formula I as claimed in claim 1.

7-(Alkynylamino)triazolopyrimidines, their preparation and their use in the control of harmful fungi, and preparations comprising them

Abstract

5

7-(Alkynylamino)triazolopyrimidines of the formula I



in which the substituents have the following meanings:

10

L is halogen, alkyl, haloalkyl, alkoxy, amino, NHR, NR₂, cyano, S(O)_nA¹ or C(O)A²;

R is alkyl or alkylcarbonyl;

A¹ is hydrogen, hydroxyl, alkyl, alkylamino or dialkylamino;

n is 0, 1 or 2;

15

A² is alkenyl, alkoxy, haloalkoxy or one of the groups mentioned in A¹;

m is 1, 2, 3, 4 or 5, at least one L group being in the ortho position with respect to the bond with the triazolopyrimidine skeleton;

20

X is halogen, cyano, alkyl, haloalkyl or alkoxy;

R¹ is hydrogen or alkyl;

R² is alkynyl, which can be unsubstituted or substituted according to the description;

25

processes for the preparation of these compounds, preparations comprising them and their use in the control of harmful phytopathogenic fungi.